

A Study on AI in Marketing and Improving the Business Procedure

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Abstract— Everything will be accessible online in early 2020. To put it briefly, everything is bought and sold online. It represents a wise company with a wise customer. Artificial intelligence (AI) is being used in various industries, including business and engineering, because it is dependable, economical, capable of solving complex issues, and able to make expert system decisions. Perhaps the most prevalent and dynamic kind of marketing available today is social media. Artificial intelligence (AI) assists marketers in analyzing brand visibility and interactions to gauge client happiness. Consequently, a marketer can effectively promote his goods and services and run his firm thanks to the strength of artificial intelligence systems in digital marketing tactics. AI is becoming more and more sophisticated in marketing, and marketers have the ability to use it to their advantage by properly implementing and overseeing AI solutions, which will become increasingly important for enhancing the company.

Indexed Terms- Marketing; Artificial Intelligence (AI); Satisfaction.

I. INTRODUCTION

Everything will be accessible online in early 2020. To put it briefly, everything is bought and sold online. It represents a wise company with a wise customer. Thus, the company needs to improve the way it markets and promotes its goods and services. It will undoubtedly boost business and enable customers to swiftly fulfill their needs. The focus of this paper is on artificial intelligence research in marketing, which eventually enhances corporate operations. Utilizing client data to anticipate their next step and enhance the customer journey is known as artificial intelligence marketing.

AI makes it possible to bridge the gap between data science and execution by enabling the hitherto unachievable task of sorting through and analyzing massive data dumps. Three types of intelligence exist:

the first is self-aware, the second recognizes what others can comprehend, and the third is neither self-aware nor self-reliant. The first kind is superior, the second is decent, and the third is ineffective. Machiavelli, Niccolo.

1.1 THE SOURCE OF ARTIFICIAL INTELLIGENCE IS INFORMATION TECHNOLOGY. It's frequently used synonymously with terms like robotization or automation. Artificial intelligence (AI) is being used in various industries, including business and engineering, because it is dependable, economical, capable of solving complex issues, and able to make expert system decisions. Sadly, the functioning and capabilities of AI are limited. Despite the fact that computer science has extended our lives and made them considerably easier, scientists believe that because of our heavy reliance on artificial intelligence, humanity may go extinct. Scientists contend that the employment of AI devices will cause people to lose their sense of purpose in life. Our extinction may have to do with the speed at which machines are learning and becoming more proficient at what they do.

The various shortcomings of modern life science can be overcome by computer science techniques because of their flexible and adaptive system behavior. AI works by focusing on how the human brain functions and how individuals learn, make decisions, and work to solve problems. The findings of this review are then used as the foundation for developing intelligent software and systems.

1.2. MARKETING STRATEGY:

A marketing strategy is a procedure that might help a company focus its limited resources on the most promising prospects to increase sales and establish a long-term competitive edge. It is important to remember that the primary objective of any marketing

strategy should be customer pleasure. Putting an organization's resources and efforts toward a plan of action that could lead to higher sales and market dominance in a specific niche could be called a marketing strategy. In addition to identifying the company's marketing goals and outlining how they will be met—ideally within a predetermined timeframe—a marketing strategy also includes creation, promotion, distribution, pricing, and relationship management. Resource allocation, positioning, marketing mix, and target market segmentation are all determined by marketing strategy.

1.3. PROCESS FOR TAGGING CUSTOMERS :

The fundamental method of tagging clients is using past retention data to forecast the likelihood that active customers will:

1. Cancel their subscription at a high risk
2. Is it profitable to keep them?
3. Which retention techniques appear to be the most straightforward?

The goal is to pair up current clients with past retention data clients who have comparable characteristics. The strategy, which capitalizes on the notion that "birds of a feather flock together," is predicated on the notion that current clients can achieve retention rates that are comparable to those of their analogous predecessors. Social networking is the most stylish way that technology is being used for sales. Social media has proven to be an incredibly important feature for business growth and development. Not just because we live in a digital age, but also because it's easy to understand. These new technologies have given rise to several innovative ways for entrepreneurs to market their goods. Below is a discussion of few of them:

A. *CONTENT MARKETING*: Due to its importance in social media, multimedia, and mobile search, content marketing has become a major priority for many organizations. A lot of businesses still don't get the significance of trends or how content marketing powers the majority of digital marketing. In actuality, developing brand recognition is crucial.

B. *MOBILE MARKETING*: A lot of people use smartphones and tablets these days because they are convenient and time-efficient devices that they can carry with them wherever they go and use whenever they need to. The need to sell content on mobile platforms has arisen due to the steady rise in the

number of people using smartphones and tablets. Websites should be redesigned by businesses to make them responsive to mobile devices.

C. *DIGITAL MARKETING THROUGH INTEGRATED CHANNELS*: It's critical to ensure that all messaging and communications tactics used in marketing are consistent and customer-focused. For example, Google created Google + for a variety of reasons, but one of them is to be able to recognize and seize social signals and patterns.

D. *PERSONALIZED MARKETING*: Due to media saturation, traditional media marketing strategies, such as television, are less successful. Personalized marketing is a relatively recent marketing tactic. employing computer programs to read and create unique messages. The customer will receive pertinent information from a computer that interprets their activity.

E. *VISUAL MARKETING*: Instagram, Pintrest, Slide share, and many other platforms will be leveraged for visual marketing. Being prepared to incorporate a marketing message and signal into an object or image is essential. The goal of this new marketing trend is to increase the use of digital marketing.

II. LITERATURE STUDY

2.1. *ARTIFICIAL INTELLIGENCE MARKETING BY T. THIRAVIYAM.*

The article makes the case that the mind and heart are at the center of marketing. Both intellect and feeling are involved. We must not only fulfill the functional needs of our customers but also take up an emotional place in their minds. To succeed in the current era of digital marketing, marketers must therefore incorporate artificial intelligence technologies into their marketing strategy. It keeps customers' thoughts occupied without the need for human intervention, saves marketers time and money, and benefits prospects.

2.2 *IMPACT OF ARTIFICIAL INTELLIGENCE IN MARKETING: A VIEWPOINT FROM PAKISTANI MARKETING PROFESSIONALS, MUHAMMAD ZAFEER SHAHID AND GANG LI.* : The primary determinants of AI integration in marketing are clients, media attention, competitive pressure, and

digital maturity, according to the paper's findings. Marketing experts list the following as the main advantages: increased productivity, reduced time spent on marketing tasks, higher conversion rates, improved customer data comprehension, increased feasibility of marketing decisions, increased ROI, insights, improved customer satisfaction, and so on.

2.3 JAREK, K., AND MAZUREK, G.: *ARTIFICIAL INTELLIGENCE AND MARKETING.*

This paper comes to the conclusion that advances in AI undoubtedly affect how marketing departments and organizations operate.

III. RESEARCH STUDY

3.1 *METHODOLOGY:*

The study investigates the various facets associated with the idea of computer science in marketing. This paper may be a descriptive study, with instances mentioned to support the references from some readily available secondary sources and a few from the authors' private experiences.

3.2 *OBJECTIVES:*

1. To comprehend how AI functions in marketing.
2. To research the enhancements following the use of AI in business.
3. To research customer and company satisfaction

3.3 *LIMITATION:*

Since this is only a study-based research paper, it is being completed using my own knowledge as well as existing literature and internet resources.

3.4 *HYPOTHESIS:*

H1: AI enhances any company's marketing performance.

H2: AI directly assists consumers with their marketing.

IV. CURRENT APPLICATION OF AI IN MARKETING

i. *INTERNET AD:* Artificial intelligence generates dynamic internet advertisements based on user or client requirements. It will display consumer-helpful advertisements by forecasting the next customer pattern.

ii. *CUSTOMIZE THE USER EXPERIENCE:* It is constantly prepared to offer clients a more personalized experience. Customers will feel reassured and at ease with it.

iii. *CATBOTS DRIVEN BY AI:* AI generates chat-bots that help customers with basic questions. It also directs consumer meetings.

iv. *PREDICTIVE ANALYSIS* AI analyzes the available data through predictive analysis. The data may pertain to a single customer. Artificial intelligence makes the judgment and completes the task based on the examination of this data.

v. *WEB DESIGN:* the business creates websites as digital tools for marketing purposes. This webpage displays the commercial.

vi. *CONTENT GENERATOR:* Artificial intelligence creates a distinctive content generator for marketing purposes, aiding in the business promotions.

vii. *MATERIAL CURATION:* Artificial intelligence not only creates material but also selects certain pieces of information from it. AI locates, compiles, and showcases digital resources related to particular topics for marketing.

viii. *EMAIL MARKETING CAMPAIGNS:* AI generates email campaigns by gathering emails and delivering marketing materials to the intended recipient.

ix. *VOICE SEARCH OPTIMIZATION:* AI enables users to search for what they need by speaking.

x. *E-COMMERCE:* AI is providing both small and large businesses with intelligent business solutions. The e-Commerce industry is greatly benefiting from AI as well.

APART FROM THIS THERE ARE SOME SPECIAL APPLICATIONS OF AI IN MARKETING WITH THE EXAMPLE ARE AS FOLLOWS:

i. *VOICE PROCESSING TECHNOLOGIES:* using an Amazon Alexa app or a tool to make voice purchasing requests. Task performance is aided by virtual assistants (Cortana, Google Home, and Siri).

ii. *TEXT PROCESSING TECHNOLOGIES:* going through a store with a virtual assistant as your guide. In addition to providing the route to the chosen location, a GPS navigation system recommends close or nearby attractions and displays things that are comparable to those linked

to the predetermined destination. Recent beer recipes have been developed and released, and information received by a chat-bot has led to modifications to the current goods. Creation of a marketing effort to introduce the Toyota Mirai as a replacement vehicle model. Computers analyzed words and movies on YouTube using data from a certain target group in order to display to the machines the most popular content from that group. After that, after numerous iterations, they created the main primary creative crusade, and the final texts for the advertisements were approved by the supervising team.

iii. TECHNOLOGIES FOR IMAGE PROCESSING AND RECOGNITION:

After determining the skin's state on the face, a person can choose their own cream kind and have their photo and data, including the current weather, analyzed. a picture as a means of conducting an online search. The computer program presents objects that are comparable or complementary, unless the search results yield identical items. When shopping online, choose distinct colors of cosmetics based on the client's facial image. a service-free physical store where payments are processed automatically after video cameras analyze the selected items. Electronic mirrors in clothing stores adjust the group to the look, feel, and preferences of the customers. Choose the best Christmas gift by looking through the top twelve options endorsed the buyer's face and emotion analysis's popularity, the software recommended choosing eBay as your best option. Before a video consultation starts, clients can be identified by comparing the image from the video with a prior photo they submitted (BBVA). According to Adobe Sensei, photographs can be automatically framed to align with the needs of communication channels and brands, thanks to embedded machine learning techniques. an image finder that enables you to select the best shots and discard the less striking ones.

iv. DECISION MAKING:

Creation of an individual savings plan as a result of an examination of the money in the account, receipts, the total amount of expenses, and the consumer's spending patterns. Through an analysis of a user's financial behavior in comparison to a specific community, the appliance creates a savings plan specifically tailored to

the user's financial situation. The traveler's musical choices were supported by trip destinations that matched him personally. With the exception of town, the app selects particular neighborhoods and sites based on the user's profile. A chat-bot is making a cocktail mix based on the ingredients that the customer has requested and is accommodating to their preferences. After analyzing 300 recipes, the chat-bot recommends the one that works best.

V. AI BOOSTING PROMOTION AND ADVERTISING

Make an effort to comprehend the distinctions between digital and AI marketing before moving on to learn how AI improves marketing. Digital marketing encompasses any forms of marketing that make use of a device or the internet. To connect with both present and potential clients, businesses use digital channels, including search engines, social media, email, and other websites. Other than these, digital marketing has a lot of potential since it is the fastest and safest way to target large audiences when promoting and branding a firm through digital media. Digital marketing is the secret to having a career that is in demand. The field of computer science that focuses on creating more intelligent machines that can understand and behave like humans is called artificial intelligence (AI) such as planning, learning, speech recognition, and problem-solving. Artificial intelligence is rapidly gaining traction, impacting our daily lives, social interactions, and the customer experience. In the upcoming years, there will be additional returns with enhanced governance, growth, and enhancements. The primary distinction between computer science and digital marketing is that the former involves selling goods and services through digital platforms. The science of computer science (AI) may be concerned with creating intelligent machines that have human-like abilities to reason and behave.

THE FOLLOWING TECHNIQUES OR PROCEDURES ARE USED BY AI TO SUPPORT STAKEHOLDER AND CONSUMER MARKETING:

a) INFORMATION FILTERING: Marketing is becoming a well-established, data-driven field. Businesses are reaching out to customers more effectively and improving the customer experience through the efficient use of information. With so

much data available, it becomes an enormous task for humans to analyze it. This may be where AI's strength manifests itself, assigning complicated jobs and analysis to AI while leaving important duties for humans to complete.

- b) *ENHANCING THE SEARCH EXPERIENCE:* Artificial intelligence (AI) has significantly changed how we search and, consequently, the quality of the search experience. As was previously mentioned, Google introduced Rank Brain in 2015, setting the standard for the use of AI in search. Businesses such as Amazon have emulated Google's approach by making searches smarter.
- c) *IMPROVING VISUAL SEARCH:* Artificial intelligence's image recognition technology has allowed people to attempt the impossibly difficult. While visual search technology is still in its infancy, text-based searches are rapidly being replaced by image-based searches. It has gained popularity thanks to apps like Google Lens and Pinterest. Because it will allow them to customize their shopping experience, the user's shopping experience can be greatly enhanced.
- d) *PROVIDING SUGGESTIONS FOR PRODUCTS:* Amazon's collaborative filtering technology has advanced significantly in facilitating business product recommendations. Nowadays, the majority of successful organizations are able to offer customized items to customers in addition to content recommendations. Numerous businesses, like Amazon, rely on AI-based clustering systems for support.
- e) *OFFERING ADJUSTABLE PRICES:* AI makes use of dynamic pricing, which is implemented as a result of monitoring customer behavior supported by information. For all of its superfast trains, Indian Railways has transitioned to dynamic pricing based on demand and season. The revenue increased by twenty percent after the deployment.
- f) *FORECASTING TRENDS:* AI may possess specialized skills in the process of gathering facts from historical records and forecasting the current pattern. It can be used to analyze customer behavior and ascertain if a buyer would choose to make repeat purchases or not. Businesses will find it simpler to use the information to make future plans.
- g) *SEGMENTING CUSTOMERS:* Artificial intelligence (AI) facilitates the process of audience

personalization by sifting through collected data sets and identifying purchasing trends and behaviors. AI must be used to further granulate the collected data in order to assist with the buyer's product's personalization. AI-assisted dynamic segmentation enables an organization to analyze customer behavior in response to shifting preferences.

- h) *SOCIAL MEDIA INFORMATION:* perhaps the most prevalent and dynamic kind of marketing available today is social media. Artificial intelligence (ai) assists marketers in analyzing brand visibility and interactions to gauge client happiness. ai may also be able to identify possible business plans or product-related issues. it assists businesses in reconsidering and representing their offerings in line with the target market.

i) *SATISFACTION:*

A) *COMPANY:*

Artificial intelligence (AI) has a big influence on modern procedures and may necessitate a completely different way of doing things for marketing teams:

- The removal of time-consuming and tedious tasks. Repeatable and routine processes, such as data gathering and analysis and picture search and processing, are automated by AI.
- Greater importance is placed on strategic and creative endeavors. AI's precise analysis boosts the importance of strategic and creative work in gaining a competitive edge.
- Innovations in design. AI is changing the way value is provided to customers and elevating the importance of using design to create novel solutions.
- The marketing team's acquisition of new competencies. AI necessitates the integration of data scientist expertise and a grasp of the new technological opportunities within the marketing team.

B) *CONSUMER:*

AI takes things a step further and presents fresh possibilities for marketing endeavors. Benefits of AI for customers include:

- Faster and more convenient purchasing due to enhanced procedures (automated payments, better

search engines, round-the-clock customer support, etc.).

- A new kind of customer experience through widespread hyper-personalization and after-sales care that adds value above and beyond the basic product.
- A completely new dimension of the relationship between the consumer and the brand, achieved by fostering surprise and delight; reduced post-purchase dissonance due to the possibility of virtually checking the product under consideration; the removal of the category learning method; and, finally, the ability to benchmark against other users.

V. FINDING

When I first started writing this paper, I had some goals and theories in mind. These are currently being examined based on the information from the literature that was cited. Making the correct choices is essential to an effective marketing plan and online business success. Maintaining client interaction and keeping up with emerging social trends are essential for a successful marketing plan. Consequently, a marketer can effectively promote his goods and services and run his firm thanks to the strength of artificial intelligence systems in digital marketing tactics. It is clear how artificial intelligence functions in digital marketing. The process of upgrading the firm is lengthy.

Thus, the outcomes of using AI in business, particularly in marketing, truly alter the product. AI not only serves stakeholders' objectives, but it also benefits the consumer, who then uses the same website or company to make purchases. It ultimately meets the company's needs.

H1: AI ENHANCES ANY COMPANY'S MARKETING PERFORMANCE: It is clear from the aforementioned study that artificial intelligence (AI) enhances marketing performance for every business operating in the digital sphere. H1 will, therefore, probably be approved.

H2: AI AIDS CONSUMERS IN MARKETING DIRECTLY: Research and observation have shown that raw data is what drives artificial intelligence's performance. Maximize data for optimal AI performance. It just indicates if this is a customer's first or second visit to the market site. AI can only

support social media data; it cannot assist customers. Therefore, the H2 is rejected.

CONCLUSION

The results verify that artificial intelligence is used in numerous sales domains. The mind and emotions are at the center of marketing. It concerns both emotion and intelligence. In addition to providing the customers with functional benefits, we also need to hold an emotional place in their minds. Stakeholders should alter their marketing tactics and observe how consumers' behavior toward the products will shift in order to fully understand the influence of AI. The ability of marketers to successfully apply and manage AI solutions will become increasingly important for enhancing business as AI gets more advanced and extensively used in marketing.

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